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Appln. No. 09/862,766
Amendment dated August 16, 2006
Reply to Office Action mailed April 27, 2005

AUG 16 2006

REMARKS

Reconsideration is respectfully requested.

Claims 1 through 19 and 21 through 24 remain in this application.
Claim 20 has been cancelled. No claims have been withdrawn or added.

Claims 1 through 19 and claims 21 through 24 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over PCT No. WO 00/75924 to Woo in view of Mauney.

Claim 1 requires "an ear module formed to be *entirely supported* by an ear". Claim 4 requires "an ear module formed to be *entirely supported* by an ear". Claim 9 requires "an ear module formed to be *entirely supported* by an ear". This relationship, which is evidenced by the Figures of the drawings, permits the ear module to be worn without requiring other contact or connections with the body of the wearer.

It is noted that the current rejection of the claims simply switches the roles of the previously cited patent documents, so that the previous primary reference (the Mauney patent) is now relied upon a secondary reference, with the previous secondary reference (the Woo application) now being relied upon as the primary reference of the obviousness combination. It is submitted that even with the switching of the roles of the references in the allegedly obvious combination, the combination is not in fact obvious for the following reasons.

Initially, it is contended in the rejection of the Office Action that:

PCT, WO 00/75924, disclose a portable audio player suitable for use for an MP3 player. The audio player comprises of an ear module (4) to be supported by an ear (Fig 3). The module includes a speaker (130), a memory for storing digitized audio (F), a D/A converter (120), and micro processor (100) (Fig 6) (page 5, lines 18-25, page 7, lines 16-21).

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It is then conceded that the Woo application does not disclose "the portable audio player to be entirely supported by an ear". It is then contended that:

Mauney et al disclose an ear molds for holding communication devices within the ear in a secure and comfortable manner. Fig 3 shows the left ear mold 301 with an audio communication device 302 installed (col. 4, lines 54-64). Fig 1a shows a left ear mold 101 inserted at the opening of a human ear. The ear mold 101 is held in place in the ear, at least in part, by a protrusion of helix 103a (Col 3, lines 28-36). The ear mold of Mauney et al is entirely supported by the ear.

And it is further asserted that:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to make the portable audio player of the PCT, WO 00/75924 as an ear mold as taught by Mauney et al, in order to have the portable audio player of the PCT, being entirely supported by an ear (or audio player to be free of any other structure providing support on the body of a user when supported on the ear as claimed in new claims 22-24).

It is initially noted that this allegation of the obviousness of the proposed combination of features of the Mauney device with the Woo device does not set forth any reason or motivation for one of ordinary skill in the art, considering the Woo application, to adopt the selected features of the Mauney device, other than simply to have the selected feature.

More specifically, it is noted that the Woo application, which is now relied upon as the primary reference in the rejection of the Office Action, clearly describes a device which is not only supported on both of the ears of the user, but also on the neck of the user. More specifically, the PCT application states at page 4, lines 10 through 14 (emphasis added):

In order to achieve the above object, an audio player according to the present invention comprises a main body disposed on the rear of the neck of a user; arms extended toward the ears of the user from the main body; ear phones disposed on the front ends of the arms and contacted with the ears of the user; and ear hooks hung on the ears of the user for the ear phones to be kept on the ears.

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Clearly, one of ordinary skill in the art understands from this summary of the device of the PCT application that the device is not "entirely supported by an ear", which is conceded in the most recent rejection. The Woo application unambiguously describes a main body of the device resting on the neck and each of the earphones collectively contacting both of the ears of the user. This is not the only description of this relationship in the PCT application, see also page 5, lines 19 through 22 (emphasis added):

As shown in FIG. 3, an audio player according to an embodiment of the present invention is provided with a main body 1 disposed on the rear of the neck of a user and two arms 2 extended from the main body 1 to two earphones 4 placed on ears of the user. The earphones 4 has pads 5 covering the ears and ear hooks 3 hung on the ears.

The Woo application also points out the function, and thus benefit of the "main body", as it provides an electrical connection between the earphones. See, e.g., Woo at page 5, lines 23 through 25, where it states:

Signal transmission lines connecting the main body 1 and the earphones 4 are built in or attached to the arms 2, so the audio player according to an embodiment of the present invention has a very compact structure without troublesome lines.

It is noted that the modification of Woo proposed in the rejection of the Office Action does not account for this connection function of the Woo "main body". The proposed modification does not lead one of ordinary skill in the art to understand how such connection is to be accomplished in the modified Woo device. It is noted that the Mauney device has absolutely no need for such a connection between earpieces, as the Mauney device is a hearing aid and as such, each hearing aid would separately detect a distinct set of environmental sounds from the other hearing aid. However, one of ordinary skill in the art understands from the Woo application that the audio player of Woo plays the audio as stereo sounds, with one channel being directed into each of the ears of the user. Thus, the Woo device requires a connection between the ear phones to deliver the signal to each of the ear phones. Thus, the Woo device is required to have the connection between the ear phones, and attempting to support the ear phones entirely on the ear,

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would be fruitless, and the connection between the earphones of Woo would inevitably rest against the body. Again, Mauney does not disclose to one of ordinary skill in the art any way of connecting two ear pieces that would avoid contacting, and gaining support from, the body of the user, particularly the head of the user.

Further, the Woo patent also discloses another function that the "main body" of its device performs that is not accounted for in the proposed modification—the main body accommodates the flash memory F (shown as a chip or card that is removably inserted in the main body in Figure 3 of Woo. The accommodation of this removable memory holding function is not addressed in the rejection if the proposed elimination of the main body of the Woo device is carried out. And, the Mauney patent does not provide one of ordinary skill in the art with any suggestion as to how the removable memory holding function might be performed, as the Mauney hearing aids have absolutely no need for memory, as all sounds are reproduced substantially in real time so that the user is made aware of the sounds. Also, there would be no need for a player for playing sounds stored in the memory, as this would only interfere with the function of the hearing aid of Mauney. Further, nothing in the Mauney patent or Woo application suggests to one of ordinary skill in the art that a hearing aid would benefit from having a memory and a player of digitized audio.

While the Woo application recognizes there may be a disadvantage associated with a single point of contact between of the device and the skin of the neck, the Woo application addresses any concern by pointing out various advantages of the several contact points between the Woo device and the user's body. See, for example, Woo at page 6, line 26 through page 7, line 4 (emphasis added):

In the ear hooks 13 of FIG. 2, the arms 12 are contacted with the rear portions of ears to cause skin diseases and the like when using the arms 12 for a long time, whereas, in the ear hooks 3 according to an embodiment of the present invention, only the front ends of the ear

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hooks 3 are contacted with the upper portions of ears as in eye glasses, so that particular problems are not caused since contact areas or contact pressures become less.

The PCT application further states at page 7, lines 5 through 9 (emphasis added):

FIGs 5(A) and 5(B) are a side view and a plain view for showing wearing states of the audio player of FIG. 3, respectively. As shown in FIGs. 5(A) and 5(B), since the main body 1 is contacted with the rear portion of the neck to be supported in a state that the ear hooks 3 are hung on the ears of a user, the load due to the main body 1 is dispersed for the user not to feel much weight compared to a simple neck phone.

Thus, any possible disadvantage of the main body being supported on the skin is addressed in the device of the Woo application.

It is therefore submitted that the cited patents, and especially the allegedly obvious combination of the Woo application and the Mauney patent set forth in the rejection of the Office Action, would not lead one skilled in the art to the applicant's invention as required by claims 1, 4, 9, 14, 16 and 18. Further, claims 2, 3, 22 and 23, which depend from claim 1, claims 5 through 8, which depend from claim 4, claims 10 through 13, which depend from claim 9, claim 15, which depends from claim 14, claim 17, which depends from claim 16 and claims 19 and 21, which depend from claim 18 also include the requirements discussed above and therefore are also submitted to be in condition for allowance.

Withdrawal of the §103(a) rejection of claims 1 through 19 and claims 21 through 24 is therefore respectfully requested.

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CONCLUSION

In light of the foregoing amendments and remarks, early reconsideration and allowance of this application are most courteously solicited.

Respectfully submitted,

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Date:

August 16, 2006

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